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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/617,098	Applicant(s) KHAWAND ET AL.	
	Examiner KEVIN S. MAI	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/2/08, 11/20/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action has been issued in response to Applicant's Amendment filed October 24, 2008.
2. Claims 17 and 21 have been canceled. Claims 1, 11 and 19 have been amended. Claims 1-3, 5-16 and 18-20 have been examined and are pending.

Response to Arguments

3. Applicant's arguments filed October 24, 2008 have been fully considered but they are not persuasive.
4. Applicant's arguments with respect to claim 1 have been considered but they are not persuasive. Applicant argues that because Yun expressly prohibits the use of a presentation manager that it teaches away from incorporating such a component in its UIPC system. Examiner disagrees. While Yun does disclose not having a presentation layer, it does not prohibit the inclusion of a presentation layer. Yun's disclosure of not having a presentation layer is seen to be a design choice of Yun's aim for a real-time protocol; however the invention does not appear to be limited to never include a presentation layer. Thus for these reasons Examiner maintains the combination of Yun and Bilansky.
5. Applicant's arguments with respect to claim 7 have been considered but they are not persuasive. Applicant argues that Yun (2) does not disclose a command header causing a port to perform a co-processing task on data being sent out. Examiner disagrees. Paragraph [0135] of

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Yun (2) discloses based on the operations required of the network layer messages should contain headers with segmentation information and control information. Wherein at least the segmentation information is seen to be command information in the header. Paragraph [0120] of Yun (2) discloses the network layer has a message segmentation function to segment larger MTUs into smaller MTUs. This is seen to be done according to segmentation information. Wherein the segmentation operation is seen to be processing the data to be sent. Thus it is seen that information in the header will cause a processing task to be performed on data being sent out.

6. Applicant's argument with respect to claim 19 have been considered but they are not persuasive. Applicant argues that none of the cited references teach anything about co-processor command blocks. Examiner disagrees. As examiner understands a command block is information in the header that causes co-processing of the data it is associated with. As shown above Yun (2) discloses a header to this end and as such this data is seen to be a command block.

Claim Objections

7. In view of the cancellation of claim 17 the pending claim objection has been withdrawn.

8. Claim 11 is objected to because of the following informalities: Claim 11 recites the "command header casing" which is likely meant to be "command header causing". Appropriate correction is required.

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Claim Rejections - 35 USC § 101

9. In view of the amendments made to claim 1 the pending claim rejections under 35 USC § 101 have been withdrawn.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3, 5, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2003/0131135 to Yun (hereinafter “Yun”) and further in view of US Pat. No. 6510465 to Bilansky et al. (hereinafter “Bilansky”).

12. As to Claim 1, Yun discloses **an interprocessor communication (IPC) network, comprising:**

an IPC server that includes an IPC stack (Figure 4 of Yun discloses the card (unit 1) including an IPC stack);

the IPC stack (Figure 4 of Yun discloses a UIPC stack) **including:**

Yun does not explicitly disclose **a presentation manager;**

However, Bilansky does (Figure 1 of Bilansky).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the IPC network as disclosed by Yun, with having a presentation manager as disclosed

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by Yun. One of ordinary skill in the art would have been motivated to combine because follows the standard OSI model. Paragraph [0074] of Yun discloses that the UIPC discloses transports messages from an originating place to a destination but chooses not to add a presentation mechanism to avoid overhead costs. However, it is seen that since the UIPC disclosed in Yun transports messages according to the OSI model it is seen that the presentation layer is effectively encompassed within its structure.

a session manager coupled to the presentation manager (Figure 1 of Bilansky); **and**

Examiner recites the same rationale to combine used above.

Yun discloses **a device interface coupled to the session manager** (Figure 4 of Yun discloses device drivers coupled with the UIPC stack);

a port coupled to the IPC stack (Figure 4 of Yun discloses queues associated with the UIPC stack);

a component coupled to the IPC stack (Figure 4 of Yun discloses Tasks associated with the UIPC stack); **and whereby the session manager can dedicate use of the port to the component** (Paragraph [0091] Table 2 of Yun discloses creating a message queue that can be used by a task for UIPC);

wherein the session manger dedicates the port for use by the component for a particular service (Paragraph [0091] Table 2 of Yun discloses registering to receive messages of a particular class).

13. **As to Claim 2**, Yun-Bilansky discloses the invention as claimed as described in claim 1, **wherein the component comprises a software thread** (Paragraph [0014] of Yun disclose that a

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task is interchangeably used with process and application. Thus task encompasses software threads).

14. **As to Claim 3**, Yun-Bilansky discloses the invention as claimed as described in claim 1, **wherein the session manager dedicates the port in response to receiving a request from the component** (Paragraph [0101] of Yun discloses a UIPC_CreateQueue command).

15. **As to Claim 5**, Yun-Bilansky discloses the invention as claimed as described in claim 1, **wherein the session manager dedicates the port by linking an opcode corresponding to the particular service to the port** (Paragraph [0056] of Yun discloses an application identifier for distinguishing a relevant process to communicate. Then paragraph [0143] discloses a routing table based on the application identifier).

16. **As to Claim 6**, Yun-Bilansky discloses the invention as claimed as described in claim 5, **wherein any IPC message sent by the component or other components coupled to the IPC stack, that carries the opcode linked to the port is routed through the port** (Paragraph [0056] of Yun discloses an application identifier for distinguishing a relevant process to communicate. Then paragraph [0143] discloses a routing table based on the application identifier. Given the purpose of a routing table it is seen that messages with the appropriate application identifier would be routed accordingly).

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17. **As to Claim 10**, Yun-Bilansky discloses the invention as claimed as described in claim 1, **wherein once the port is dedicated, the component can communicate with a second component via the port without having to add IPC headers to the communications between the component and the second component** (Paragraph [0085] of Yun discloses communication between tasks based on the message queue method is now possible).

18. Claims 7-9, 11-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun-Bilansky and further in view of US Pub. No. 2003/0115358 to Yun (hereinafter “Yun (2)”).

19. **As to Claim 7**, Yun-Bilansky discloses the invention as claimed as described in claim 1. Yun-Bilansky does not explicitly disclose **wherein the session manager adds a command header to data sent by the component, wherein the command header causes the port to perform a certain co-processing task to the data prior to the data being sent from the port.**

However, Yun (2) discloses this (Paragraph [0135] of Yun (2) discloses messages containing headers with segmentation information and control information)

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the IPC network of claim 1 as disclosed by Yun-Bilansky, with having command headers as disclosed by Yun (2). One of ordinary skill in the art would have been motivated to combine because it allows message segmentation to function which allows the system to avoid the overhead involved in a connection mode (Paragraph [0120] of Yun (2))

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20. **As to Claim 8**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 7, **wherein the co-processing task performed by the port provides for one of rate conversion and summing two or more data streams together** (Paragraph [0128] of Yun (2) discloses messages being segmented and reassembled).

Examiner recites the same rationale to combine used in claim 7.

21. **As to Claim 9**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 7, **wherein the session manager forwards a request to the device interface whenever it wants to dedicate the port to a particular type of service** (Paragraph [0071] of Yun (2) discloses application IDs being allotted to tasks until they are done with sending or receiving and then the IDs are freed. Thus it is seen that requests must be made to reserve them to the tasks until they are otherwise freed).

Examiner recites the same rationale to combine used in claim 7.

22. **As to Claim 11**, Yun discloses **a method for providing a port in an interprocessor network having at least one component coupled to an Interprocessor Communications (IPC) stack that includes a session manager, the method comprising the steps of: dedicating the port to a particular type of service by the session manager** (Paragraph [0091] Table 2 of Yun discloses creating a message queue that can be used by a task for UIPC. Then paragraph [0091] Table 2 discloses registering to receive messages of a particular class. Yun does not explicitly disclose a session manager); **and**

However, Bilansky discloses this (Figure 1 of Bilansky)

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Examiner recites the same rationale to combine used in claim 1.

routing messages sent by the at least one component using that service to the port

(Paragraph [0056] of Yun discloses an application identifier for distinguishing a relevant process to communicate. Then paragraph [0143] discloses a routing table based on the application identifier. Given the purpose of a routing table it is seen that messages with the appropriate application identifier would be routed accordingly)

adding a command header to data sent by the at least one component, the command header casing the port to perform a certain co-processing task to data sent by the at least one component prior to the data being sent from the port.

Yun-Bilansky does not explicitly disclose adding a command header to data sent by the at least one component, the command header casing the port to perform a certain co-processing task to data sent by the at least one component prior to the data being sent from the port

However, Yun (2) discloses this (Paragraph [0135] of Yun (2) discloses messages containing headers with segmentation information and control information)

Examiner recites the same rationale to combine used in claim 7.

23. **As to Claim 12**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 11, **wherein the step of dedicating the port comprises linking at least one opcode that corresponds to the service to the port** (Paragraph [0056] of Yun discloses an application identifier for distinguishing a relevant process to communicate. Then paragraph [0143] discloses a routing table based on the application identifier).

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24. **As to Claim 13**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 12, **wherein the session manager dedicates the port in response to receiving a request from one of the at least one components** (Paragraph [0101] of Yun discloses a `UIPC_CreateQueue` command).

25. **As to Claim 14**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 12, **wherein the session manager initiates dedication of the port** (Paragraph [0064] of Yun (2) discloses the `UIPC` assigning application IDs to queues).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of claim 12 as disclosed by Yun-Bilansky-Yun (2), with having the session manager initiate port dedication. One of ordinary skill in the art would have been motivated to combine to make sure that all tasks could appropriately receive and transmit messages (Paragraph [0064] of Yun (2))

26. **As to Claim 15**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 12, **further comprising the step of: routing any messages that carry the at least one opcode associated with the port sent by the at least one component through the port** (Paragraph [0056] of Yun discloses an application identifier for distinguishing a relevant process to communicate. Then paragraph [0143] discloses a routing table based on the application identifier. Given the purpose of a routing table it is seen that messages with the appropriate application identifier would be routed accordingly).

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27. **As to Claim 16**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 11, **wherein the session manager forwards a request to a device interface that is part of the IPC stack whenever it wants to dedicate the port to a particular type of service** (Paragraph [0116] of Yun discloses a Request primitive used from one layer to request a certain operation from another layer. It is seen that it would have been obvious of one of ordinary skill in the art to have the session manager request from the device interface the dedication given this request primitive).

28. **As to Claim 18**, Yun-Bilansky-Yun (2) discloses the invention as claimed as described in claim 11, **wherein the co-processing task performed by the port provides for one of rate conversion and summing two or more data streams together** (Paragraph [0128] of Yun (2) discloses messages being segmented and reassembled).

Examiner recites the same rationale to combine used in claim 7.

29. **As to Claim 19**, Yun discloses **a method for providing a smart port in an interprocessor network having a component coupled to an Interprocessor Communications (IPC) stack that includes a session manager and a device layer including the smart port, the method comprising the steps of: requesting a type of service by the component to the session manger** (Paragraph [0091] Table 2 of Yun discloses registering to receive messages of a particular class. Yun does not explicitly disclose a session manager);

However, Bilansky discloses this (Figure 1 of Bilansky)

Examiner recites the same rationale to combine used in claim 1.

negotiating the type of service between the session manger and the device layer (Paragraph [0116] of Yun discloses a Request primitive used from one layer to request a certain operation from another layer. It is seen that it would have been obvious of one of ordinary skill in the art to have the session manager negotiate with the device interface the dedication given this request primitive);

determining availability of the smart port to support the type of service requested by the device layer (Paragraph [0091] Table 2 of Yun discloses registering to receive messages of a particular class. Wherein registering to support the particular class is seen to be determining availability);

granting a Service ID by the device layer if it determines that the smart port can support the requested type of service (Figure 6 of Yun discloses a Uipc_ReigsterMsgHandler command used to register the type of message to be processed); **and**

forwarding the Service ID by the session manager to the component (Paragraph [0056] of Yun discloses an application identifier for distinguishing a relevant process to communicate. Then paragraph [0143] discloses a routing table based on the application identifier. The table is seen as having informed the component of the ID), **wherein the Service ID is located in a co-processor command block.**

Yun-Bilansky does not explicitly disclose wherein the Service ID is located in a co-processor command block.

However, Yun (2) discloses this (Paragraph [0135] of Yun (2) discloses messages containing headers with segmentation information and control information)

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Examiner recites the same rationale to combine used in claim 7.

30. **As to Claim 20**, Yun-Bilansky discloses the invention as claimed as described in claim 19. Yun-Bilansky does not explicitly disclose **further comprising the step of: sending the Service ID along with data anytime the component wants the type of service performed by the smart port.**

However, Yun (2) discloses this (Paragraph [0135] of Yun (2) discloses messages containing headers with segmentation information and control information)

Examiner recites the same rationale to combine used in claim 7.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5619697 A - Inter-processor communication system for performing message communication between processors and multi-processor real time system for communicating among a plurality of processors at real time with the inter-processor communication system to Nishida; Moritugu

US 7343421 B1 - Restricting communication of selected processes to a set of specific network addresses to Goyal; Pawan

US 7263597 B2 - Network device including dedicated resources control plane to Everdell; Peter B et al.

US 5455950 A - Universal device for coupling a computer bus to a specific link of a network and operating system therefor to Vasseur; Marc et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN S. MAI whose telephone number is (571)270-5001. The examiner can normally be reached on Monday through Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KSM

/Yasin M Barqadle/
Primary Examiner, Art Unit 2456